

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059163

Luminaire Tested: S123RDR-S1165D950-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059163
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1165D950-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

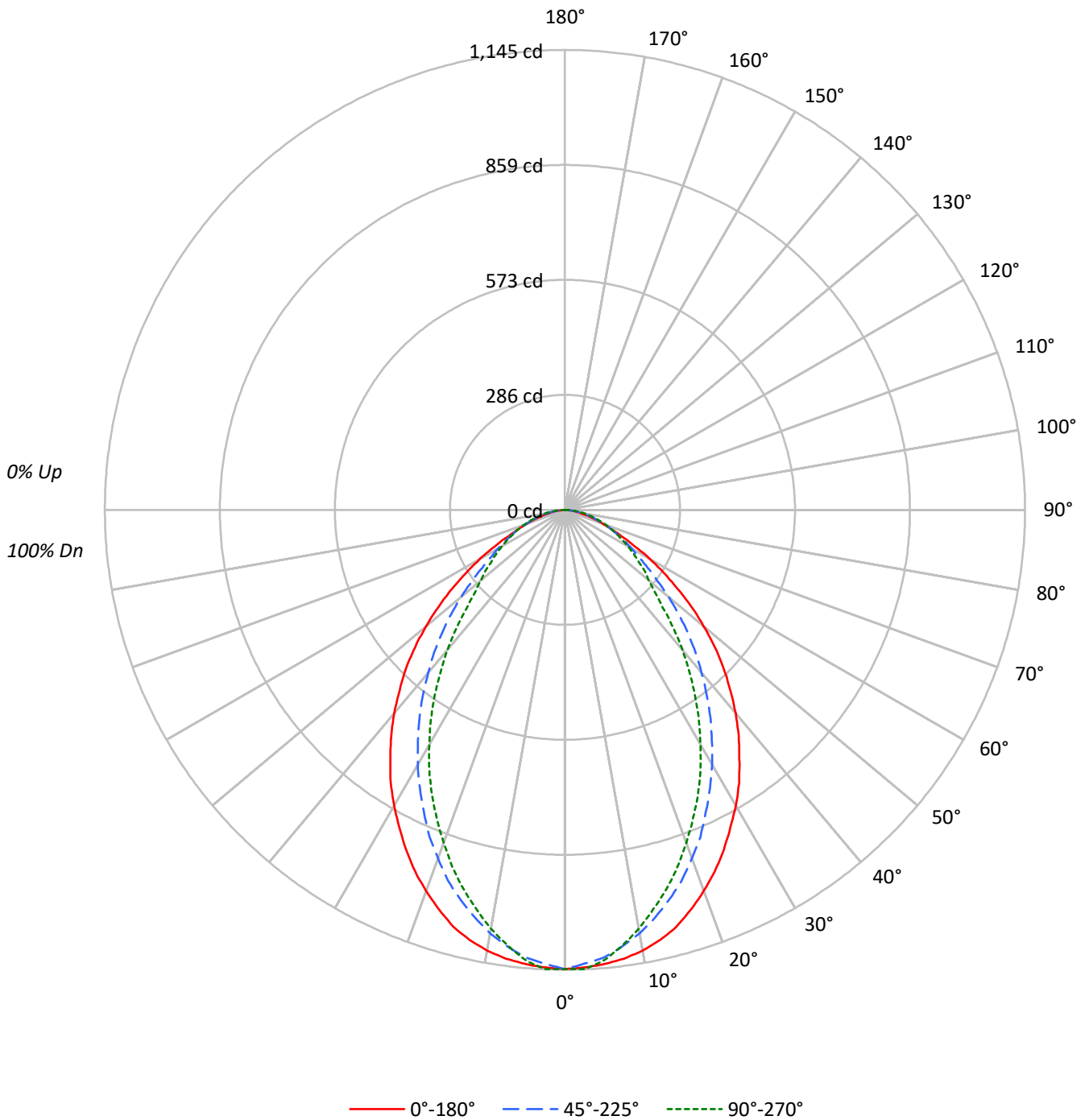
Lumens per Lamp: N/A
Luminaire Lumens: 1999.6 lumens
Efficiency: N/A
Efficacy: 47.8 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35				
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13425	13425	13425
5°	13379	13184	13265
10°	13288	12763	12632
15°	13064	12211	11877
20°	12621	11539	11024
25°	12106	10754	10147
30°	11533	9931	9148
35°	10853	9041	8096
40°	10132	8109	6971
45°	9288	7166	5728
50°	8233	6151	4971
55°	7006	5149	4557
60°	5712	4486	4227
65°	4351	3970	3932
70°	3395	3540	3680
75°	2745	3180	3430
80°	2042	2603	3158
85°	1105	1671	2775

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9288 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.1	5.3
10°-20°	285.5	14.3
20°-30°	388.2	19.4
30°-40°	402.4	20.1
40°-50°	339.4	17.0
50°-60°	240.9	12.0
60°-70°	147.2	7.4
70°-80°	73.3	3.7
80°-90°	16.6	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	779.8	39.0
0°-40°	1182.2	59.1
0°-60°	1762.5	88.1
0°-90°	1999.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1999.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1143	1143	1143	1143	1143	
5°	1135	1135	1118	1125	1125	108
15°	1075	1054	1004	987	977	302
25°	934	893	830	800	783	430
35°	757	699	631	587	565	474
45°	559	500	432	372	345	429
55°	342	306	252	230	223	307
65°	157	151	143	143	142	160
75°	60	65	70	73	76	65
85°	8	10	12	18	21	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1143.3	1143.3	1143.3	1143.3	1143.3
2.5°	1140.5	1141.9	1130.9	1143.3	1144.6
5°	1135.0	1135.0	1118.5	1125.4	1125.4
7.5°	1126.8	1124.0	1096.5	1096.5	1093.8
10°	1114.4	1106.2	1070.4	1063.6	1059.4
12.5°	1096.5	1082.8	1038.8	1026.5	1018.2
15°	1074.6	1054.0	1004.5	986.6	977.0
17.5°	1043.0	1022.3	967.4	942.6	931.7
20°	1010.0	979.7	923.4	898.7	882.2
22.5°	974.3	935.8	880.8	850.6	832.7
25°	934.4	893.2	830.0	799.7	783.2
27.5°	891.8	846.5	781.9	747.5	731.0
30°	850.6	798.4	732.4	693.9	674.7
32.5°	806.6	747.5	680.2	640.3	621.1
35°	757.1	699.4	630.7	586.7	564.8
37.5°	710.4	651.3	579.9	533.2	508.4
40°	661.0	601.9	529.0	480.9	454.8
42.5°	608.7	552.4	480.9	424.6	399.9
45°	559.3	500.2	431.5	372.4	344.9
47.5°	505.7	450.7	383.4	322.9	303.7
50°	450.7	399.9	336.7	281.7	272.1
52.5°	397.1	354.5	289.9	254.2	250.1
55°	342.2	306.4	251.5	229.5	222.6
57.5°	291.3	265.2	215.7	204.7	202.0
60°	243.2	221.2	191.0	184.1	180.0
62.5°	196.5	184.1	166.3	163.5	160.8
65°	156.6	151.2	142.9	142.9	141.5
67.5°	123.7	123.7	122.3	125.0	123.7
70°	98.9	100.3	103.1	105.8	107.2
72.5°	78.3	82.4	85.2	89.3	90.7
75°	60.5	64.6	70.1	72.8	75.6
77.5°	44.0	48.1	53.6	57.7	60.5
80°	30.2	33.0	38.5	44.0	46.7
82.5°	19.2	20.6	24.7	30.2	33.0
85°	8.2	9.6	12.4	17.9	20.6
87.5°	0.0	0.0	1.4	5.5	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)